

**A METHOD OF PRODUCING A SEMICONDUCTOR STRUCTURE HAVING
AT LEAST ONE SUPPORT SUBSTRATE AND AN ULTRATHIN LAYER**

ABSTRACT

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10 A method of producing a semiconductor structure having at least one support
substrate and an ultrathin layer. The method includes bonding a support substrate to a
source substrate, detaching a useful layer along a zone of weakness to obtain an
intermediate structure including at least the transferred useful layer and the support
substrate, and treating the transferred useful layer to obtain an ultrathin layer on the
support substrate. The source substrate includes a front face and a zone of weakness
below the front face that defines the useful layer, and the useful layer is sufficiently
thick to withstand heat treatments without forming defects therein so that it can be
reduced in thickness to form the ultrathin layer. The resulting ultrathin layer is
15 suitable for use in applications in the fields of electronics, optoelectronics or optics.

NY:811730.1